



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,228	12/11/2001	Ikuo Tsukagoshi	80398.P464	1136

7590 09/27/2004

Archana B. Vittal
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Seventh Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025-1026

EXAMINER

CATHEY II, PATRICK H

ART UNIT	PAPER NUMBER
----------	--------------

2613

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/021,228

Applicant(s)

TSUKAGOSHI ET AL.

Examiner

Patrick H. Cathey II

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☒ Claim(s) 16 and 26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/11/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the drawings and labeling of the first and second decoding units must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim's 16 and 26 are objected to because of the following informalities: the inventor does not specify which units within the video decoder the second decoding unit is receiving and sending information. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim's 1-4 and 10-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Mochida et al. (US 6,462,744).

As for Claim's 1, 3, 10 and 12, Mochida et al. teaches a process in decoding an MPEG stream by first detecting what kind of frame is composed by the picture data. When the picture data is an I or P picture the data is sent to a host buffer memory. If the picture data is a B picture then the data reduction control unit determines which slice includes macroblocks that correspond to an invisible area. The macroblocks that correspond to the invisible area is then omitted from being sent to the host buffer memory with the I and P pictures (Column 14, line 54 to Column 15, line 11). This host buffer memory is then sent to the decoding unit (See Figure 9).

As for Claim's 2 and 11, Mochida et al. teaches a predetermined area that the on screen display is going to cover (Column 4, lines 13-25).

As for Claim's 4 and 13, Mochida et al. teaches decoding the only the predetermined portions of each B frame by determining which slice includes macroblocks that correspond to the invisible area by referring to the slice start code (SSC) included in each slice and the location information of the invisible area (Column 14, line 54 to Column 15, line 11). The SSC in a slice header shows the vertical position of the slice (Column 6, lines 64-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim's 5, 9, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochida et al. in view of Reitmeier et al. (US 4,622,577).

Some of the limitations have already been addressed in the previous rejections. Although Mochida et al. fails to teach skipping decoding until a left most position of the vertical slice is met, then decoding until the right most position of the vertical slice is met and then stopping decoding when this right most position is met for a specific horizontal slice, it should be noted that the OSD's of Mochida et al. could be in different positions, further Reitmeier et al. does (Column 2, lines 37-46). Reitmeier et al. teaches a method

to convert from a 5:3 aspect ratio to a 4:3 ratio. Since invisible areas are known to be on the left and right sides of a center display, it would have been obvious to one of ordinary skill to stop decoding during invisible areas of B frames to reduce the processing load.

Claim's 16, 21, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochida et al. in view of Boyce et al. (US 5,614,952).

As for Claim 16, Mochida et al. teaches a first decoder (21 in Figure 7) which includes a skip judge (111 note where invisible data is either kept or discarded) to instruct units to skip decoding of portions of a B frame (Column 14, line 54 to Column 15, line 11).

Although Mochida et al. fails to specifically teach a second decoder which receives information from the first decoder and controller, Boyce et al. teaches a second decoder for decoding PIP (Figure 4). The second decoder would have to have signals sent from a controller for the location and size of the PIP and from the first decoder to determine where the OSD will appear and therefore skip decoding of B frame positions. It would have been obvious to one of ordinary skill to combine teachings to add a second low cost decoder to allow for the enhanced function of PIP.

As for Claim 21, Mochida et al. fails to teach performing an inverse discrete cosine transform (IDCT) on the decoded portions of the B frame and then stores the data to frame memory, but Boyce et al. does (Column 16, line 25 to Column 17, line 21).

Art Unit: 2613

Since you are only reconstructing the decoding data it would have been obvious to one of ordinary skill to pass the decoded data through an IDCT before the image is produced.

As for Claim 22, many of the limitations have been addressed in the above rejections. Although Mochida et al. fails to teach a macro block syntax parser, Boyce et al. does. Boyce et al. teaches a preparser used to discard amplitude symbols for each macroblock when the number of amplitude symbols exceeds a maximum preselected number per macroblock. When no information is discarded then the amplitude symbols are below the preselected amount (Column 3, lines 12-27). Since this preparser is only detecting whether the video stream is above or below the macro block layer it would have been obvious to one of ordinary skill to add a preparser or other means to detect whether the video stream is above or below the macro block layer.

As for Claim 25, many of the limitations have been addressed in the above rejections. Mochida et al. teaches a video stream including I, P and B frames and a video decoder that only decodes predetermined portions of each B frame of the video stream, but fails to specifically teach the demultiplexer to receive and extract information in a layer of the video stream before the video decoder. It would be apparent that the information to be decoded in the invention by Mochida et al. would require passing through a demultiplexer before being decoded, but Boyce et al. does teach the use of this demultiplexer (Column 5, lines 44-52). Since the data stream must be converted into a format to be decoded it would have been obvious to one of ordinary skill to place a demultiplexer before the decoder to format the data stream correctly.

Mochida et al. and Boyce et al. fail to specifically teach a digital to analog converter to convert the video signal from the video decoder to an analog signal to be displayed on a display device. Since many display devices require an analog input from the decoded video signal it would have been obvious to one of ordinary skill to convert the video signal to an analog or digital video signal for either use the particular display device requires. (Official Notice)

Claim's 6, 17-20, 23 and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochida et al. in view of Reitmeier et al. and in further view of Boyce et al.

As for Claim's 6, 7, 17-20, 23 and 26-33, the limitations have been addressed in the above rejections.

Claim's 8, 24 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochida et al.

Mochida et al. teaches in the Background of his invention the use of MPEG2 as the video stream. Although Mochida et al. does not specifically teach the use of MPEG2 as the video stream in his invention it would have been obvious to one of ordinary skill to assume from what he put in his background that the MPEG format he used in his invention was or could have been MPEG2. (Official Notice)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining attached references also include relative information pertaining to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick H. Cathey II whose telephone number is (703) 305-4909. The examiner can normally be reached on M-F 7:30 to 5:00 (Every other friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (703) 503-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick H. Cathey II
Examiner
Art Unit 2613

PHC


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600